

Lymantria dispar

Report

2021



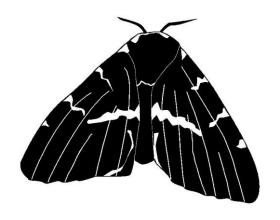


STATE OF IDAHO

LYMANTRIA DISPAR MONITORING PROGRAM

SUMMARY REPORT

2021



by Erika Eidson, Tom Eckberg, and Lacy Robinson

> Idaho Department of Lands 3284 W. Industrial Loop Coeur d'Alene, Idaho, 83815

> > Report No. IDL 21-1 December 2021

In cooperation with:







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EXECUTIVE SUMMARY

In 2021, a total of 2559 *L. dispar* moth (LDM), formerly known as gypsy moth, traps were deployed in Idaho. No LDM were captured and no delimitation trapping was conducted. There have been no LDM trapped in Idaho since the 2016 capture of one male European LDM in Pocatello, in Bannock County (Figure 1).

2021 COMMON NAME CHANGE FOR L. DISPAR

"Gypsy moth" is no longer being recognized as the common name for *Lymantria dispar*. The note below from the Entomological Society for America (ESA) explains the reasoning for this change:

"In July 2021, the ESA Governing Board unapproved "gypsy moth" as an acceptable common name for *Lymantria dispar*. The change was made in recognition that "gypsy" is considered an ethnic slur and in response to messages from members, the general public, and, most importantly, members of the Roma community who testified to the name's harmful and dehumanizing effects. While the use of an ethnic slur is reason enough to stop using a common name, the issue becomes increasingly problematic when an insect that is the target of eradication is named with an ethnic slur against a people group who have been the targets of genocide.

Furthermore, many of the "positive" connotations of the word "gypsy" are based on harmful stereotypes. For example, Ian Hancock, a professor at the University of Texas at Austin and former representative for the Romani people at the United Nations, told the Washington Post: "These all play into one of the stereotypes; in story books we 'wander' and 'roam,' but as history clearly shows, we were not *allowed* to stop, and had no choice but to keep moving on."

In addition, several media outlets were starting to refuse to use the old common name, and large organizations were starting to use alternative names such as LD moth. ESA saw this as an opportunity to bring the community together to find a better common name for the insect."

Over the summer of 2021, an open call was made to *L. dispar* stakeholders (researchers, forestry professionals, arborists, invasive species program managers, Roma people, etc.) to submit suggestions for a new common name. As of December 2021, seven new common name candidates have been shortlisted. ESA hopes to have a new common name in place by early 2022.

Because there is currently no approved common name, this report will use the following terminology:

Scientific Name	Former Common Name	Name in this Report
Lymantria dispar	gypsy moth	L. dispar moth (LDM)
Lymnatria dispar dispar	European gypsy moth (EGM)	European L. dispar moth (ELDM)
Lymantria dispar asiatica, Lymantria dispar japonica, Lymantria albescens, Lymantria umbrosa, and Lymantria postalba	Asian gypsy moth (AGM)	Asian Lymantria moths (ALM)

INTRODUCTION

Lymantria dispar, or L. dispar moth (LDM) (formerly gypsy moth), is a destructive defoliator of many deciduous forest and shade trees as well as some conifers. Since the introduction of the European subspecies of LDM, European L. dispar moth (ELDM) (Lymantria dispar dispar, formerly European gypsy moth), into the United States in 1869, ELDM has spread throughout New England and has become established in all or part of about 20 Northeast and Midwest states. Once this pest becomes established, eradication is usually not possible. There are also multiple subspecies and related species of LDM that originate from Asia, Asian Lymantria moths (ALM) (formerly collectively referred to as Asian gypsy moth), including Lymantria dispar asiatica, Lymantria dispar japonica, Lymantria albescens, Lymantria umbrosa, and Lymantria postalba. The first ALM was discovered in North

America in 1991 near the port of Vancouver in British Columbia, Canada. Since that time, ALM have been discovered and eradicated in 9 states: California, Idaho, North Carolina, South Carolina, Georgia, Oregon, Texas, Oklahoma and Washington State. However, each year, ALM has the potential to be introduced by ships moving cargo from overseas. ELDM, on the other hand, are most often introduced to the West by people moving household items from infested areas of the Midwest and Eastern United States.

The State of Idaho has eradicated all introductions of LDM (both ELDM and ALM). As a result, Idaho has no established LDM populations within the state. The purpose of the Idaho LDM survey program is to detect new introductions of LDM in a timely manner. This allows for effective eradication treatments that prevent populations from becoming established. Through this program, delimitation and eradication can be achieved with the least expense and lowest risk of environmental impact.

LIFE CYCLE

LDM goes through four life stages: egg, caterpillar (larva), pupa, and adult. It has one generation per year and overwinters in the egg stage. Each female lays 50-1,000 eggs in one mass, which is covered with velvety golden, or buff-colored hairs from the female's abdomen. The egg mass is about $\frac{3}{4}$ inch wide and $1-1\frac{1}{2}$ inches long and is attached to trees, logs, rocks, buildings, and any other outdoor household article.

Caterpillars hatch from eggs in mid-April to mid-June. This is the only damaging life stage. The caterpillars are voracious feeders and can grow to 2" in length. A single caterpillar can eat up to three square feet of leaves in its lifetime. Larger (older) caterpillars have five pairs of blue spots and six pairs of rusty red spots along their backs. They typically feed in the treetops at night but migrate down the trunk to the ground each day for protection from heat and predators.

Once a caterpillar matures, it transforms into a non-feeding stage called the pupa. Mature caterpillars produce a "cocoon" with strands of silk, which is used to attach themselves to vertical surfaces. Then a more rigid chrysalis, or pupal case, forms around the caterpillar as it transforms. The pupa is an immobile stage during which the caterpillar changes into an adult moth. Pupae may gyrate if they are disturbed, but left alone, they will appear still as the change occurs. They are dark reddish brown and leathery. Pupae are usually found in crevices on tree trunks or on larger branches. Pupae may also be found buried in leaf litter.

Adult moths begin to emerge in late July and are often present until early October, depending upon location and temperatures. Females have tan bodies from 1" to 2" long. Their wings are cream colored with dark brown zigzag markings. Female ELDMs do not fly, whereas the female ALMs are capable of flight. Both ELDM and ALM females emit a pheromone to attract a mate. Scientists have been able to produce this pheromone synthetically and use it to trap male moths. Males are medium sized (approx. 1½ inch wingspan), brownish gray, have feathery antennae and fly in the late afternoon. Adult moths live for about one week, during which time the sexes mate. Females lay eggs during August and early September starting the life cycle over again.

HOSTS

ELDM caterpillars generally prefer oaks as hosts. However, they have the ability to feed on several hundred species of trees and shrubs including oak, apple, alder, aspen, filbert, willow, birch, and plum. Coniferous species such as Douglas-fir, larch, pine and western hemlock are less desirable, yet are suitable hosts of the ELDM (Liebhold *et.al.* 1995). However, ALM can feed and grow on over 500 different plants, some of which are important economic tree species in Idaho. Western larch, a valuable timber species in Idaho, is a preferred host of ALM. Other timber species may also serve as hosts.

HISTORY

Surveys to detect the introduction of the LDM have been conducted in Idaho each year since 1974 (Table 1). The first LDM was discovered in 1986 in Sandpoint, Bonner County. The following year numerous additional moths were caught in Sandpoint and Coeur d'Alene. Ground treatments were conducted in 1988 and aggressive aerial spray eradication programs followed in 1989 and 1990 using a naturally occurring bacterium, Bacillus thuringiensis var. kurstaki (B.t.k.) as the pesticide (Tisdale and Livingston 1990, Livingston 1990). No LDM have been caught in the treated areas since 1989. Another small infestation (5 moths) was detected near Huetter, ID in 1998. An eradication program was initiated in 1999 consisting of an aerial application of B.t.k to 35 acres surrounding the capture site. No moths were caught in detection or delimit traps in this area in subsequent years. In 2004, a LDM determined to be from Asian origins (ALM) was caught near Hauser, ID (Lech and Livingston 2004). A 600 acre aerial spray eradication program in Kootenai County, near Hauser, was conducted in 2005 using B.t.k. European LDM (ELDM) have been caught in various areas throughout the state in the annual detection surveys from 1986 through 2019 (Table 1). However, no eradication spray programs or mass trapping efforts have occurred since 2004, because there is a low probability of populations becoming established when only a couple moths are detected in a single year. However, delimitation trapping has occurred in the areas and years following any LDM capture to monitor and determine appropriate future treatments.

Historic Idaho LDM Reports can be requested from the Idaho Department of Lands by contacting the address on the cover of this report or calling 208-769-1525.

Cooperating agencies, with accompanying responsibilities in the Idaho LDM program, include the following:

- ➤ Idaho Department of Lands Overall program coordination and trapping in northern Idaho, except in Forest Service campgrounds.
- ➤ Idaho State Department of Agriculture Trapping in southern Idaho and submission of data to the Integrated Plant Health Information System (IPHIS) data library.
- > USDA, APHIS Provides cost share funding, traps, baits, and technical expertise.
- ➤ USDA Forest Service, Region 4 Trapping in southern Idaho.
- ➤ USDA Forest Service, Region 1 Trapping in Forest Service campgrounds in northern Idaho.
- ➤ Idaho Department of Transportation Provides monthly reports of vehicle registrations in Idaho from states that are generally infested with LDM.
- ➤ University of Idaho, Moscow Technical assistance.

Table 1 – Lymantria dispar moth trapping history in Idaho.

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Table 1 - Lymantria dispar moth trapping history in Idaho (notes)

2021 LYMANTRIA DISPAR MOTH PROGRAM

Detection Trapping

Cooperating agencies in the Idaho LDM detection program placed 2,559 detection traps throughout the state in 2021 (<u>Table 2</u>). <u>Figure 2</u> shows approximate trap placements. Pheromone-baited traps were placed on a grid basis at a density of approximately 2-4 traps per square mile. Traps were placed throughout the state in cities, towns, surrounding urban areas, and rural communities in accordance with the pre-determined rotation schedule (see <u>Appendix</u>). No LDM were captured in detection traps in Idaho in 2021.

Cities and communities where 20 or more move-ins occurred were trapped irrespective of their place in the schedule. A move-in is defined as an individual or family moving to Idaho from a state that is generally infested with LDM or by someone who purchased/brought a vehicle from infested states. This information is derived from vehicle registration information supplied on a monthly basis by the Idaho Department of Transportation. Most infestations are initiated when an egg mass or other life stage of LDM arrives on an outdoor household article brought by someone moving into the area.

Between May 2020 and April 2021, there were 3,965 move-ins and vehicle registrations to Idaho from quarantined states in the east. Between May 2019 and April 2020, there were 6,246 move-ins. Between May 2018 and April 2019, there were 9,178 move-ins. While many zones had over 20 move-ins in 2021, these zones were already planned to be trapped this year, so there were no non-scheduled zones trapped in 2021 due to move-ins. Campgrounds, tourist attractions, and other high-risk locations were also trapped.

In north Idaho, USFS R1 personnel assisted with trapping approximately 316 sites normally managed by IDL due to IDL staffing shortages.

In south Idaho, trap exchanges were maintained between ISDA and the USFS R4 personnel. In general and for efficiency, ISDA managed trapping in urban areas and USFS personnel managed trapping in rural areas mostly within National Forest high-use campgrounds and visitor sites.

<u>Delimitation Trapping</u> – No delimit trapping occurred in 2021.

<u>Mass Trapping</u> – No mass trapping was conducted in Idaho in 2021.

¹Trapping did occur in Idaho in these years, and no moths were found. Records are incomplete as to the exact number of traps.

²Detection trapping, a low density of traps to determine existence of pest in an area or community.

³Delimitation trapping, an intensified trapping scheme to determine the size and extent of the pest population.

⁴Mass trapping, done for control at approximately 9 traps per acre.

⁵All moths captured in Idaho have been of the European variety, except as noted in 2004.

Table 2 – Total number of *Lymantria dispar* moth traps placed, by agency, in Idaho in 2021.

AGENCY	DETECTION TRAPS	DELIMIT TRAPS	MASS TRAPS	TOTAL PLACED
IDL	1753*	0	0	1753
ISDA	636	0	0	636
USFS - R4	70	0	0	70
USFS - R1	100*	0	0	98
TOTALS	2,559	0	0	2559

^{*}In 2021, USFS R1 personnel assisted with trapping ~316 sites normally administered by IDL due to IDL staffing shortages.

Table 3 – Approximated actual costs of the *Lymantria dispar* moth survey and treatment program for the state fiscal year 2021 (July 1 2020 – June 30 2021).

AGENCY	COS	\mathbf{T}
	European GM	Asian GM
IDL: State Funds to Idaho Department of Lands from Idaho State		
Department of Agriculture	\$33,940.04	Not applicable
IDL: USDA – APHIS Cooperative Grant to IDL through ISDA	\$22,500	"
IDL: USDA – FS S&PF Forest Health Funds to IDL	\$13,618.71	"
Idaho State Department of Agriculture	\$14,133.68	"
US Forest Service- Region 1	\$10,000	"
US Forest Service- Region 4	\$7,000	"
USDA- APHIS Direct Costs for traps and lures	\$2,400	"
SFY 2021 Total	103,592.43	\$0

2022 PROGRAM

<u>Detection Trapping</u> —For the 2022 trapping season, we will continue the rotating schedule for trap zones. There are 2,587 total traps planned (<u>Figure 3</u>) for 2022. Any trap zone with move-ins greater than 20 will be added to the 2022 trapping schedule if not already scheduled for the current trapping year.

Delimitation Trapping – No delimitation trapping planned is planned.

<u>Mass Trapping and Eradication</u> – There are no mass trapping or eradication treatments proposed.

Figure 1: State of Idaho most recent *Lymantria dispar* moth (LDM) capture site: a European LDM male in 2016.

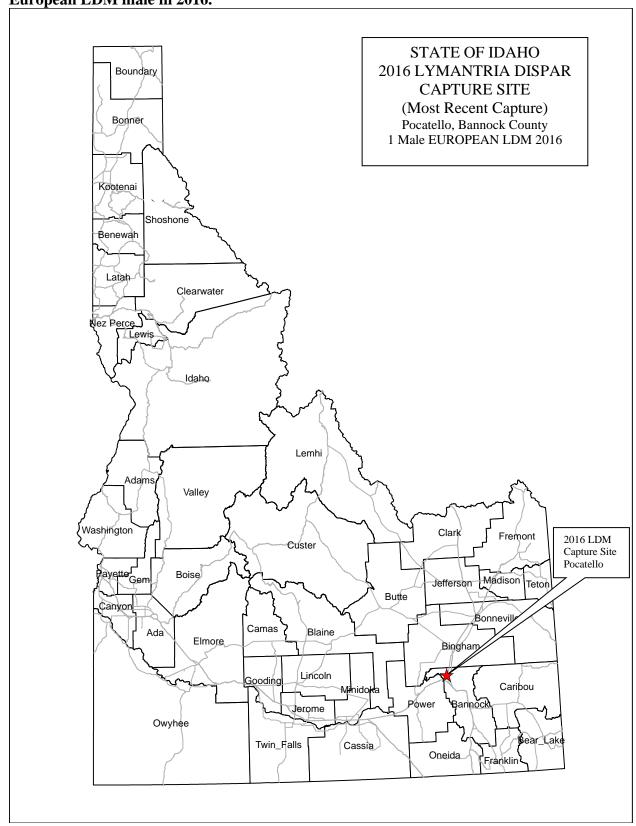


Figure 2: Map of *Lymantria dispar* moth traps placed in Idaho in 2021 (2,559 total traps placed).

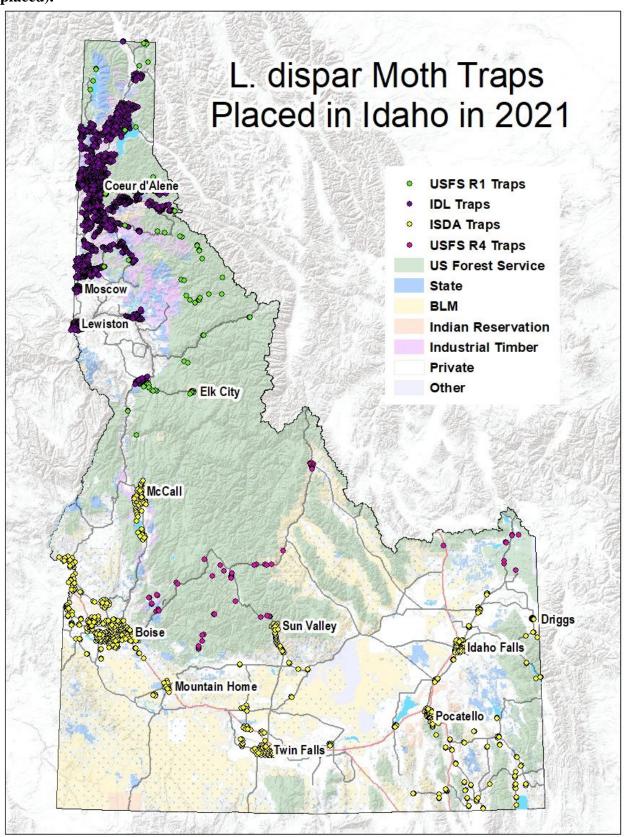
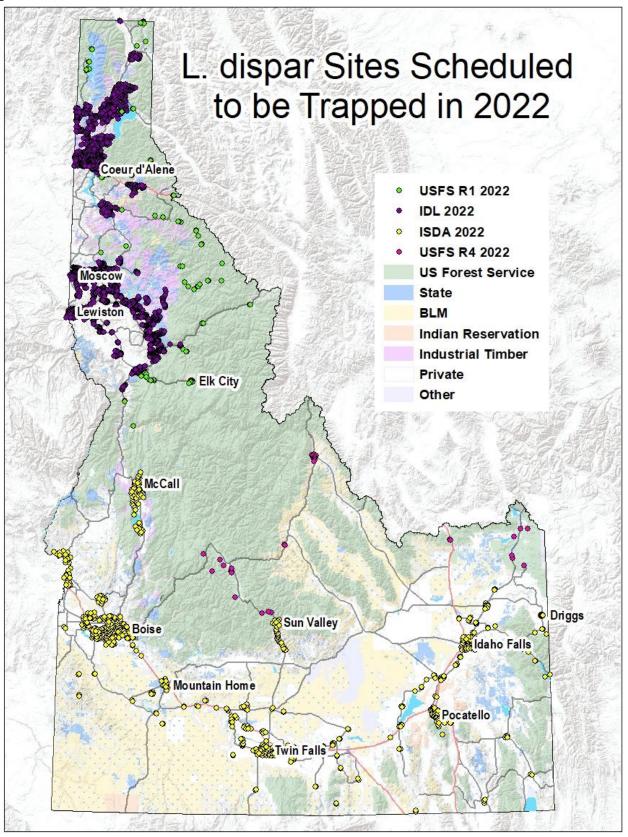


Figure 3: *Lymantria dispar* moth sites scheduled to be trapped in 2022 (2,587 total traps planned).



REFERENCES

- Lech, Gretchen and Livingston, R. Ladd. 2004. State of Idaho gypsy moth survey trapping program summary report 2004. Report No. IDL 04-2.
- Liebhold, A.M, K.W. Gottschalk, R.M. Muzika, M. E. Montgomery, R. Young, K. O'Day and B. Kelley. 1995. Suitability of North American Tree Species to the Gypsy Moth: A Summary of Field and Laboratory Tests. USDA Forest Service GTR NE-211.
- Livingston, R. Ladd. 1990. State of Idaho, Summary report of 1990 gypsy moth eradication and survey efforts with a brief history of the gypsy moth and related activities from 1974 to 1989. Report No. IDL 90-7.
- Tisdale, Robert and Livingston, R. Ladd. 1990. Gypsy moth eradication program in Idaho 1989 Sandpoint and Coeur d'Alene, Bonner and Kootenai counties. Report No. IDL 90-4.

APPENDIX

LYMANTRIA DISPAR MOTH DECISION CRITERIA FOR AREAS TO TRAP

Original decision criteria as to what areas (zones) or cities to conduct detection trapping for *Lymantria dispar* moth (LDM) in and on what schedule to trap were developed by the Gypsy Moth Technical Advisory Committee in 1989. Revisions have been made in succeeding years. A review of the new 2020 census data is currently underway and may result in additional updates in 2023. The cities, towns, communities and rural areas of the state are categorized as follows:

Category 1 (Map A1). Detection surveys conducted annually. This category includes larger cities and towns where numerous people or families moving into the area (move-ins) each year cause a substantial risk of LDM infestation and dictate annual detection trapping. Consideration was also given to cities with colleges, industry, a military base, or tourism that would influence the risk of infestation or that otherwise made annual detection trapping advisable.

Category 2 (Map B1). This category includes smaller cities and towns with populations greater than 2000 but which normally have fewer move-ins. Detection trapping will normally be done every second year. Half of category 2 communities are trapped in a given year, and the other half are trapped the following year.

Category 3 (Map C1). This category includes communities and other areas with populations generally less than 2000. Detection trapping is normally done every third year. One third of the category 3 communities are trapped in a given year on a rotational basis.

Category 4 (Map C1). This category includes small, isolated towns or communities where limited or non-contiguous host interrupts the natural or unaided spread of the insect. These zones will be trapped only every third year, without regard to move-ins. This Category was aligned with Category 3 in 2014.

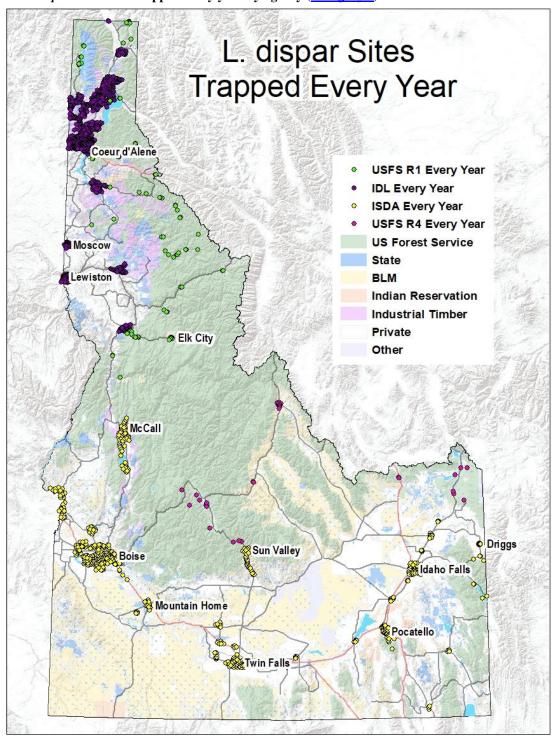
Category 5. This category was developed for rural communities or areas where little or no risk of establishment exists due to lack of host or limited human population. These areas are not trapped unless something occurs that would increase the risk of introduction in a particular year.

A large percentage of the LDM movement around the nation is brought about by families moving into a community and bringing LDM in various life stages (particularly egg masses) with them, usually on outdoor household items. For this reason, it was determined by this Technical Advisory Committee that if more than 20 move-ins occurred in a category 2 or 3 zone within a one-year period (May- April), that zone would be trapped that year, regardless of where it was in the normal schedule. This additional trapping will not interrupt or alter the regular schedule. A move-in is defined as an individual or family moving to Idaho from a state that is generally infested with LDM. This information is provided to the program by the Idaho Department of Transportation.

LYMANTRIA DISPAR MOTH TRAPPING SCHEDULE MAPS AND TABLE FOR IDAHO

This schedule and the number of traps has been updated over the years, so it may not reflect the historical trapping schedule. The following maps and table reflect the trap sites utilized in 2021. Additional zones from Category $\underline{2}$ or $\underline{3}$ (maps \underline{B} and \underline{C}) may also be trapped in any given year due to >20 move-ins from eastern state known to be infested with *L. dispar* moth. To request full historical trapping data, please contact the Idaho Department of Lands.

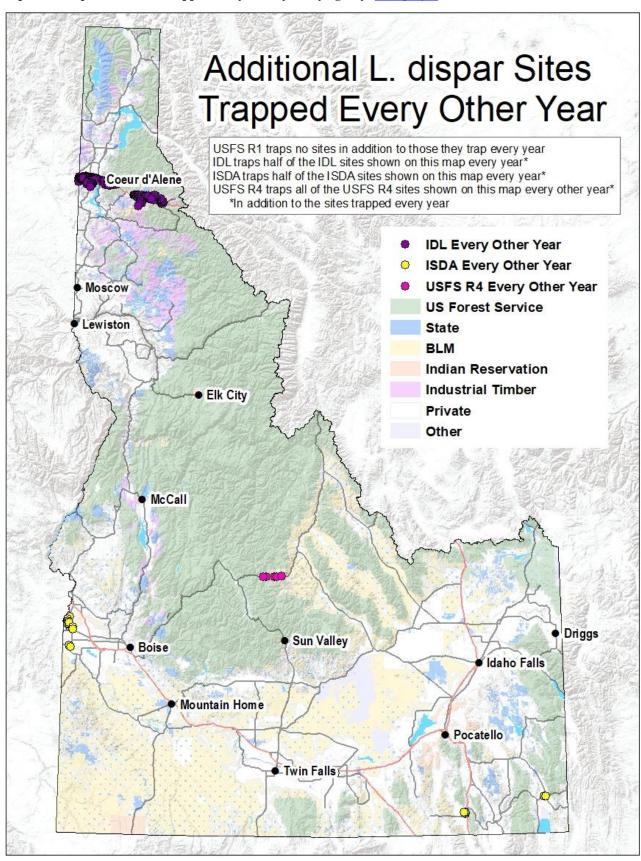
Map A1: L. dispar moth sites trapped every year by agency (Category 1).



L. dispar Sites Trapped Every Year in North Idaho USFS R1 Every Year **IDL Every Year US Forest Service** State BLM Indian Reservation **Industrial Timber Private** Other oeur d'Alene

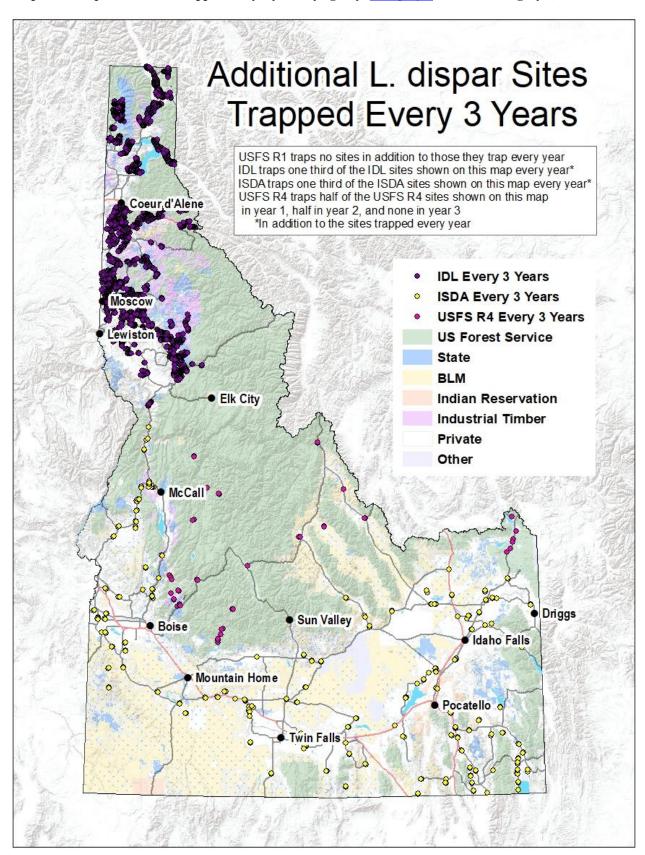
Map A2: L. dispar moth sites trapped every year by agency, close up of North Idaho (Category 1).

Map B1: L. dispar moth sites trapped every other year by agency (Category 2).



Map B2: L. dispar moth sites trapped every other year by agency, close up of North Idaho (Category 2). Additional L. dispar Sites Trapped **Every Other Year in North Idaho** USFS R1 traps no sites in addition to those they trap every year IDL traps half of the IDL sites shown on this map every year* *In addition to the sites trapped every year **IDL Every Other Year US Forest Service** State BLM Indian Reservation **Industrial Timber Private** Other Coeur d'Alene

Map C1: L. dispar moth sites trapped every 3 years by agency (Category 3 + former Category 4).



Map C2: *L. dispar* moth sites trapped every 3 years by agency, close up of North Idaho (<u>Category 3</u> + former Category 4).

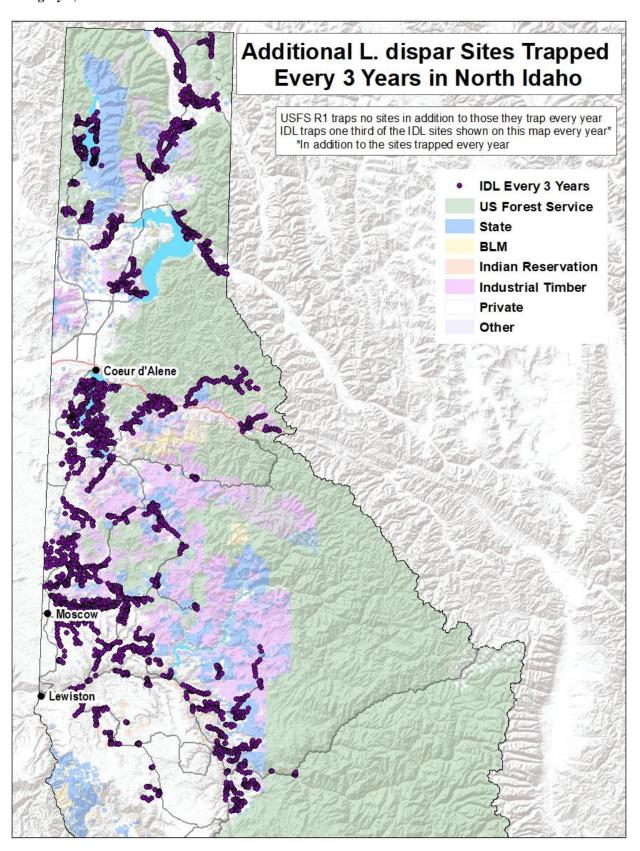


Table A: Trapping schedule for Idaho communities, 2018-2022 (planned).

Community	Category	Region	Agency	Approx. # of traps	2018	2019	2020	2021	Planned 2022
Bonners Ferry	1	1	IDL	35	X	X	X	X	X
Sandpoint	1	1	IDL	199	X	X	X	X	X
Priest River	1	1	IDL	52	X	X	X	X	X
Priest River South	1	1	IDL	55	X	X	X	X	X
Farragut	1	1	IDL	19	X	X	X	X	X
Spirit Lake	1	1	IDL	52	X	X	X	X	X
Athol	1	1	IDL	56	X	X	X	X	X
Rathdrum	1	1	IDL	84	X	X	X	X	X
Post Falls	1	1	IDL	100	X	X	X	X	X
Coeur D'Alene	1	1	IDL	242	X	X	X	X	X
St. Maries	1	1	IDL	78	X	X	X	X	X
Moscow	1	1	IDL	35	X	X	X	X	X
Orofino	1	1	IDL	67	X	X	X	X	X
Lewiston	1	1	IDL	62	X	X	X	X	X
Elk City	1	1	IDL	5	X	X	X	X	X
Grangeville	1	1	IDL	61	X	X	X	X	X
USFS-R1	1	1	USFS R1	78	X	X	X	X	X
Border	1	1	IDL	6	X	X	X	X	X
Sagle West	1	1	IDL	161	X	X	X	X	X
Sagle East	1	1	IDL	111	X	X	X	X	X
Kellogg/Pinehurst	2	1	IDL	86	X	X	X		X
Wolf Lodge	2	1	IDL	74	X	X	X		X
Osburn	2	1	IDL	51		X		X	
Coeur D'Alene West	2	1	IDL	130		X		X	
Porthill	3	1	IDL	47			X		
Eastport	3	1	IDL	20			X		
Moyie Springs	3	1	IDL	63		X	X		
Moyie East	3	1	IDL	14		X	X		
Bonners South	3	1	IDL	31			X		
Naples	3	1	IDL	51			X		
Pack River	3	1	IDL	23			X		
Elmira	3	1	IDL	33			X		
Норе	3	1	IDL	53			X		
Clark Fork	3	1	IDL	58			X		
Nordman	3	1	IDL	23			X		
Coolin	3	1	IDL	63			X		
Lamb Creek	3	1	IDL	48			X		
Gleason Meadows	3	1	IDL	10			X		
McAbee Falls	3	1	IDL	32			X		

Community	Category	Region	Agency	Approx. # of traps	2018	2019	2020	2021	Planned 2022
Four Corners	3	1	IDL	17			X		
Wrenco	3	1	IDL	50			X		
Laclede	3	1	IDL	26			X		
Careywood	3	1	IDL	62			X		
Kreiger Creek	3	1	IDL	19			X		
Rose Lake	3	1	IDL	86	X			X	
Coeur D'Alene									
River	3	1	IDL	54	X			X	
Wallace	3	1	IDL	41	X			X	
Murray	3	1	IDL	7	X			X	
Mica Bay	3	1	IDL	36	X			X	
Beauty Bay	3	1	IDL	58	X			X	
Rockford Bay	3	1	IDL	54	X			X	
Harrison	3	1	IDL	84	X			X	
Worley	3	1	IDL	47	X			X	
Chatcolet	3	1	IDL	21	X			X	
Plummer	3	1	IDL	36	X			X	
Benewah	3	1	IDL	29	X			X	
Calder	3	1	IDL	9	X			X	
Desmet	3	1	IDL	30	X			X	
Emida	3	1	IDL	19	X			X	
Fernwood	3	1	IDL	46	X			X	
Clarkia	3	1	IDL	9	X			X	
Deep Creek	3	1	IDL	37	X			X	
Potlatch	3	1	IDL	38	X			X	
Potlatch South	3	1	IDL	96	X			X	
Deary North	3	1	IDL	33		X			X
Deary South	3	1	IDL	28		X			X
Helmer	3	1	IDL	21		X			X
Bovill	3	1	IDL	16		X			X
Gold Hill	3	1	IDL	17		X			X
Southwick	3	1	IDL	30		X			X
Rural Moscow	3	1	IDL	234		X			X
Genesee	3	1	IDL	5		X			X
Juliaetta	3	1	IDL	19		X			X
Kendrick	3	1	IDL	16		X			X
Cameron	3	1	IDL	5		X			X
Leland	3	1	IDL	10		X			X
Cavendish	3	1	IDL	9		X			X
Elk River	3	1	IDL	7		X			X
Ahsahka	3	1	IDL	10		X			X
Grangemont	3	1	IDL	13		X			X

Community	Category	Region	Agency	Approx. # of traps	2018	2019	2020	2021	Planned 2022
Headquarters	3	1	IDL	2		X			X
Cardiff	3	1	IDL	2		X			X
Jaype	3	1	IDL	5		X			X
Pierce	3	1	IDL	6		X			X
Orofino SE	3	1	IDL	16		X			X
Fraser	3	1	IDL	42		X			X
Weippe	3	1	IDL	32		X			X
Larson	3	1	IDL	6		X			X
Harrisburg	3	1	IDL	17		X			X
Kamiah North	3	1	IDL	5		X			X
Kamiah	3	1	IDL	9		X			X
Kamiah East	3	1	IDL	19		X			X
Glenwood	3	1	IDL	34		X			X
Kooskia	3	1	IDL	4		X			X
Harris Ridge	3	1	IDL	16		X			X
Syringa	3	1	IDL	2		X			X
Lowell	3	1	IDL	5		X			X
Lapwai	3	1	IDL	26		X			X
Spalding	3	1	IDL	10		X			X
Lenore	3	1	IDL	15		X			X
Peck	3	1	IDL	9		X			X
Culdesac	3	1	IDL	12		X			X
Slickpoo Mission	3	1	IDL	6		X			X
Reubens	3	1	IDL	3		X			X
Winchester	3	1	IDL	16		X			X
Craigmont	3	1	IDL	5		X			X
Ferdinand	3	1	IDL	3		X			X
Cottonwood	3	1	IDL	15		X			X
Stites	3	1	IDL	22		X			X
Tahoe Ridge	3	1	IDL	22		X			X
Clearwater	3	1	IDL	24		X			X
Whitebird	3	1	IDL	8		X			X
BURLEY	1	2	ISDA	6	X	X	X	X	X
MOUNTAIN		_							
HOME MOUNTAIN	1	2	ISDA	12	X	X	X	X	X
HOME AFB	1	2	ISDA	4	X	X	X	X	X
BUHL	1	2	ISDA	7	X	X	X	X	X
FILER	1	2	ISDA	4	X	X	X	X	X
TWIN FALLS	1	2	ISDA	38	X	X	X	X	X
WENDELL	1	2	ISDA	8	X	X	X	X	X
WEISER	1	2	ISDA	17	X	X	X	X	X

Community	Category	Region	Agency	Approx. # of traps	2018	2019	2020	2021	Planned 2022
FRUITLAND	1	2	ISDA	7	X	X	X	X	X
PAYETTE	1	2	ISDA	11	X	X	X	X	X
BOISE	1	2	ISDA	64	X	X	X	X	X
CALDWELL	1	2	ISDA	15	X	X	X	X	X
CASCADE	1	2	ISDA	10	X	X	X	X	X
DONNELLY	1	2	ISDA	9	X	X	X	X	X
EAGLE	1	2	ISDA	13	X	X	X	X	X
EMMETT	1	2	ISDA	13	X	X	X	X	X
KUNA	1	2	ISDA	18	X	X	X	X	X
MCCALL	1	2	ISDA	43	X	X	X	X	X
MERIDIAN	1	2	ISDA	25	X	X	X	X	X
MIDDLETON	1	2	ISDA	12	X	X	X	X	X
NAMPA	1	2	ISDA	30	X	X	X	X	X
STAR	1	2	ISDA	6	X	X	X	X	X
JEROME	1	2	ISDA	5	X	X	X	X	X
GOODING	1	2	ISDA	8	X	X	X	X	X
KETCHUM	1	2	ISDA	11	X	X	X	X	X
HAILEY	1	2	ISDA	11	X	X	X		X
RUPERT	1	2	ISDA	5	X	X	X	X	X
BELLEVUE	1	2	ISDA	5	X	X	X		X
HOMEDALE	2	2	ISDA	7	X		X		X
HEYBURN	2	2	ISDA	3	X		X		X
PARMA	2	2	ISDA	11		X			
CAMBRIDGE	3	2	ISDA	2			X		
MIDVALE	3	2	ISDA	2			X		
BANKS	3	2	ISDA	2			X		
GARDENA	3	2	ISDA	2			X		
HORSESHOE BEND	3	2	ISDA	4			X		
NEW MEADOWS	3	2	ISDA	9			X		
SWEET	3	2	ISDA	2			X		
COUNCIL	3	2	ISDA	2			X		
INDIAN VALLEY	3	2	ISDA	2			X		
STARKEY	3	2	ISDA	2			X		
RIGGINS	3	2	ISDA	2			X		
LUCILLE	3	2	ISDA	2			X		
MESA	3	2	ISDA	2			X		
OLA	3	2	ISDA	2			X		
POLLOCK	3	2	ISDA	2			X		
SMITH FERRY	3	2	ISDA	2			X	X	
FRUITVALE	3	2	ISDA	2			X	X	
TAMARICK	3	2	ISDA	2			X	X	

Community	Category	Region	Agency	Approx. # of traps	2018	2019	2020	2021	Planned 2022
BOWMONT	3	2	ISDA	2	X			X	
CAREY	3	2	ISDA	2	X			X	
FAIRFIELD	3	2	ISDA	2	X			X	
GANNETT	3	2	ISDA	2	X			X	
GIVENS HOT SPRINGS	4	2	ISDA	2	X			X	
GREENLEAF	3	2	ISDA	2	X			X	
LETHA	3	2	ISDA	2	X			X	
MARSHING	3	2	ISDA	3	X			X	
MELBA	3	2	ISDA	2	X			X	
NEW PLYMOUTH	3	2	ISDA	2	X			X	
NOTUS	3	2	ISDA	2	X			X	
PICABO	3	2	ISDA	2	X			X	
ROSWELL	3	2	ISDA	2	X			X	
WILDER	3	2	ISDA	4	X				
RICHFIELD	3	2	ISDA	2	X				
HAZELTON	3	2	ISDA	2		X			X
BLISS	3	2	ISDA	4		X			X
BRUNEAU	3	2	ISDA	2		X			X
BRUNEAU HOT SPRINGS	3	2	ISDA	2		X			X
CASTLEFORD	3	2	ISDA	2		X			X
DIETRICH	3	2	ISDA	2		X			X
EDEN	3	2	ISDA	3		X			X
GRANDVIEW	3	2	ISDA	2		X			X
DECLO	3	2	ISDA	2		X			X
OAKLEY	3	2	ISDA	2		X			X
PAUL	3	2	ISDA	2		X			X
MALTA	3	2	ISDA	2		X			X
MINIDOKA	3	2	ISDA	2		X			X
ALMO	3	2	ISDA	2		X			X
ACEQUIA	3	2	ISDA	2		X			X
HAGERMAN	3	2	ISDA	4		X			X
HAMMETT	3	2	ISDA	2		X			X
HANSEN	3	2	ISDA	5		X			X
KING HILL	3	2	ISDA	2		X			X
MURPHY	3	2	ISDA	2		X			X
MURTAUGH	3	2	ISDA	4		X			X
REYNOLDS	3	2	ISDA	2		X			X
ROGERSON	3	2	ISDA	2					X
SHOSHONE	3	2	ISDA	2					X
SILVER CITY	4	2	ISDA	2					X

Community	Category	Region	Agency	Approx. # of traps	2018	2019	2020	2021	Planned 2022
TUTTLE	3	2	ISDA	2					X
GLENNS FERRY	3	2	ISDA	2					X
Rexburg	1	2	ISDA	8	X	X	X	X	X
Idaho Falls	1	2	ISDA	51	X	X	X	X	X
Pocatello	1	2	ISDA	32	X	X	X	X	X
American Falls	1	2	ISDA	5	X	X	X	X	X
Blackfoot	1	2	ISDA	6	X	X	X	X	X
Soda Springs	1	2	ISDA	4	X	X	X	X	X
Shelley	1	2	ISDA	2	X	X	X	X	X
St. Anthony	1	2	ISDA	3	X	X	X	X	X
Driggs	1	2	ISDA	2	X	X	X	X	X
Rigby	1	2	ISDA	4	X	X	X	X	X
Blackrock	1	2	ISDA	1	X	X	X	X	X
Preston	1	2	ISDA	4	X	X	X	X	X
Victor	1	2	ISDA	2	X	X	X	X	X
Montpelier	2	2	ISDA	2	X		X		X
Malad City	2	2	ISDA	4		X		X	
Teton	3	2	ISDA	2			X		
Arco	3	2	ISDA	2			X		
Moore	3	2	ISDA	2			X		
Mackay	3	2	ISDA	2			X		
Monteview	3	2	ISDA	2			X		
Terreton	3	2	ISDA	2			X		
Hamer	3	2	ISDA	2			X		
Dubois	3	2	ISDA	2			X		
Tetonia	3	2	ISDA	2			X		
Ashton	3	2	ISDA	2			X		
Sugar City	3	2	ISDA	2			X		
Mud Lake	3	2	ISDA	2			X		
Parker	3	2	ISDA	2			X		
Thornton	3	2	ISDA	2			X		
Newdale	3	2	ISDA	2			X		
Howe	3	2	ISDA	2			X		
Holbrook	3	2	ISDA	2	X			X	
Franklin	3	2	ISDA	2	X			X	
Grace	3	2	ISDA	2	X			X	
Lava Hot Spring	3	2	ISDA	2	X			X	
McCammon	3	2	ISDA	3	X			X	
Weston	3	2	ISDA	2	X			X	
St. Charles	3	2	ISDA	2	X			X	
Ovid	3	2	ISDA	2	X			X	

Community	Category	Region	Agency	Approx. # of traps	2018	2019	2020	2021	Planned 2022
Bern	3	2	ISDA	2	X			X	
Bennington	3	2	ISDA	2	X			X	
Robin	3	2	ISDA		X			X	
Bloomington	3	2	ISDA	2	X			X	
Dingle	3	2	ISDA	2	X			X	
Bailey Creek	3	2	ISDA	2	X			X	
China Cap	3	2	ISDA	2	X			X	
Banida	3	2	ISDA	2	X			X	
Pleasantview	3	2	ISDA	1	X			X	
Samaria	3	2	ISDA	2	X			X	
Mink Creek	3	2	ISDA	1	X			X	
Oxford	3	2	ISDA	2	X			X	
Arimo	3	2	ISDA	2	X			X	
Downey	3	2	ISDA	2	X			X	
Bancroft	3	2	ISDA	2	X			X	
Georgetown	3	2	ISDA	2	X			X	
Paris	3	2	ISDA	2	X			X	
Fish Haven	3	2	ISDA	2	X			X	
Clifton	3	2	ISDA	2	X			X	
Dayton	3	2	ISDA	2	X			X	
Stone	3	2	ISDA	2		X			X
Inkom	3	2	ISDA	2		X			X
Roberts	3	2	ISDA	2		X			X
Menan	3	2	ISDA	2		X			X
Rockland	3	2	ISDA	2		X			X
Ucon	3	2	ISDA	2		X			X
Iona	3	2	ISDA	1		X			X
Moreland	3	2	ISDA	2		X			X
Fort Hall	3	2	ISDA	2		X			X
Ririe	3	2	ISDA	2		X			X
Firth	3	2	ISDA	2		X			X
Aberdeen	3	2	ISDA	3		X			X
Pingree	3	2	ISDA	2		X			X
Lewisville	3	2	ISDA	2		X			X
Riverside	3	2	ISDA	2		X			X
Rockford	3	2	ISDA	1		X			X
Springfield	3	2	ISDA	1		X			X
Masacre Rock	3	2	ISDA	1		X			X
Swan Valley/Irwin	3	2	ISDA	2		X			X
Heise	3	2	ISDA	1		X			X
Basalt	3	2	ISDA	2		X			X

Community	Category	Region	Agency	Approx. # of traps	2018	2019	2020	2021	Planned 2022
Calamity CG	1	2	ISDA	2	X	X	X	X	X
McCoy CG	1	2	ISDA	2	X	X	X	X	X
Falls CG	1	2	ISDA	2	X	X	X	X	X
Scout Mountain CG	1	2	ISDA	2	X	X	X	X	X
Alpine CG	1	2	ISDA	2	X	X	X	X	X
Mike Harris CG	1	2	ISDA	2	X	X	X	X	X
Pine Creek CG	1	2	ISDA	2	X	X	X	X	X
ALBION	3	2	ISDA	2			X		
Bayhorse (BLM) CG	1	3	USFS R4	2	X	X	X	X	X
Big Springs CG	1	3	USFS R4	2	X	X	X	X	X
Bull Trout CG	1	3	USFS R4	2	X	X	X	X	X
Buttermilk CG	1	3	USFS R4	2	X	X	X	X	X
Easley Hot Springs CG	1	3	USFS R4	2	X	X	X	X	X
Flat Rock CG	1	3	USFS R4	2	X	X	X	X	X
Glacier CG	1	3	USFS R4	2	X	X	X	X	X
Grandjean CG	1	3	USFS R4	2	X	X	X	X	X
Iron Creek CG	1	3	USFS R4	2	X	X	X	X	X
Lower Mesa CG	1	3	USFS R4	2	X	X	X	X	X
Mt. Heyburn CG	1	3	USFS R4	2	X	X	X	X	X
North Fork CG	1	3	USFS R4	2	X	X	X	X	X
Riverside CG	1	3	USFS R4	2	X	X	X	X	X
Smokey Bear CG	1	3	USFS R4	2	X	X	X	X	X
Stanley Lake CG	1	3	USFS R4	2	X	X	X	X	X
Stoddard Creek CG	1	3	USFS R4	2	X	X	X	X	X
Sunny Gulch CG	1	3	USFS R4	2	X	X	X	X	X
Wood River CG	1	3	USFS R4	2	X	X	X	X	X
ATLANTA	3	3	USFS R4	2	X			X	
CENTERVILLE	3	3	USFS R4	2	X			X	
CHALLIS	3	3	USFS R4	2			X		
CROUCH	3	3	USFS R4	2			X		
FEATHERVILLE	3	3	USFS R4	3	X			X	
GARDEN VALLEY	3	3	USFS R4	2			X		
IDAHO CITY	3	3	USFS R4	4	X			X	
ISLAND PARK	3	3	USFS R4	6			X		
LEADORE	3	3	USFS R4	2			X		
LOWMAN	3	3	USFS R4	2	X			X	
MAY	3	3	USFS R4	2			X		
NORTH FORK	3	3	USFS R4	2			X		
PINE	3	3	USFS R4	3	X			X	

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PIONEERVILLE	3	3	USFS R4	2	X			X	
PLACERVILLE	3	3	USFS R4	2	X				
SALMON RIVER	2	3	USFS R4	5		X		X	
SALMON	1	3	USFS R4	9	X	X	X	X	X
STANLEY	3	3	USFS R4	1			X		
STIBNITE	3	3	USFS R4	2			X	X	
TENDOY	3	3	USFS R4	2			X		
WARM LAKE	3	3	USFS R4	2			X		
WARREN	3	3	USFS R4	2			X		
YELLOW PINE	3	3	USFS R4	2			X		